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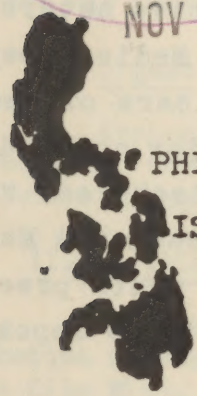
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CIRCULAR NUMBER 10

MEDICAL SECTION

GHQ FEC



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1 OCT 1947

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Articles for Publication in Circular

It is desired that the Monthly Circular Letter published by the Medical Section GHQ, FEC be of maximum value to all of the Medical Department personnel in the field. To that end, articles of professional or administrative nature that might be of general interest are needed. All Medical Department officers as well as the Commanding Officers of Medical Department units and the Surgeons of the major commands are solicited for articles of administrative or technical value. Such articles should be forwarded so as to reach the Medical Section, FEC, not later than the 20th of the month preceding the publication of the circular in which it is to appear.

CIRCULAR NUMBER 10
MEDICAL SECTION
GHQ, FEC



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GENERAL HEADQUARTERS
FAR EAST COMMAND
MEDICAL SECTION

CIRCULAR LETTER

APO 500
1 October 1947

NO. 10

Part I

<u>SUBJECT</u>	<u>ADMINISTRATIVE</u>	<u>SECTION</u>
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I. Organization of the Medical Section

Arrivals - Medical Section. Colonel Robert E. Blount, MC, formerly of the Oliver General Hospital, Augusta, Georgia, assigned as Medical Consultant.

II. Initial Distribution of Medical Films

Initial distribution of film PMF 5065, "Management and Technique Pulmonary Lobectomy" (running time 31 minutes - 16 mm prints); also film Misc. 1400, "Vagotomy for Duodenal Ulcer" (running time 14 minutes - 16 mm prints; and film PMF 5067, "Electromyographic Procedure" (color - running time 7 minutes - 11 mm prints) is being made to installations in the Far East Command. Distribution of these films is made in accordance with recommendations from the Office of the Surgeon General and for showings to interested medical personnel.

III. Redesignation of Miscellaneous Medical Films

Over a period of years, the Signal Corps produced a number of medical films for the Surgeon General which were designated as miscellaneous films. These medical subjects are primarily of value to members of the medical personnel. This Headquarters, therefore, has been advised by the Chief Signal Officer that a change in the designa-

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tion of the medical miscellaneous films to that of "Professional Medical Film" series will be made.

The attached list indicates both the new release numbers and the old release numbers assigned to the films in question. A series of silent (Black and White, and Color, where applicable) titles with these redesignations have been ordered from the laboratory and will be available at a later date. The new titles will be spliced in before the present main titles so that the films will contain both the new release number and the old release number. Sufficient titles will be furnished for subject prints which are now in the field and in use. Prints of subjects in reserve stock at this headquarters will also be changed to conform with the basic instructions. When existing stocks of these prints are exhausted, such new prints as are made will have only the new designation.

This is an advance notice and is for information purposes inasmuch as the Surgeon General may, from time to time, authorize showings of medical films to civilian agencies and these authorizations will refer to the new release numbers.

It is recommended that the booking sheets, print record cards, and reel cans be so marked as to indicate both numbers, and that all future requisitions for film in the Professional Medical series indicate the new release number and the title of the film.

PROFESSIONAL MEDICAL FILM SERIES

<u>New Rel.</u>	<u>Old Rel.</u>	<u>Title</u>
<u>No.</u>	<u>No.</u>	
PMF 5010	Misc. 947	Amputation of the Lower Extremity
" 5011	" 1167	Psychiatry for the General Medical Officer
" 5012	" 1197	Combat Exhaustion (Neuropsychiatry)
" 5013	" 1217	Caudal Analgesia
" 5014	" 1233	Neurosurgery in an Overseas General Hospital
" 5015	" 1234	Convalescent Care and Rehabilitation of Patients with injury to Spinal Cord (Surgery and Physical Medicine)
" 5016	" 1236	Thoracic Surgery, Part I - Hemothorax with a Consideration of Specific Remedial Breathing Exercises (Surgery & Physical Medicine)
" 5017	" 1237	Thoracic Surgery, Part II - Foreign Bodies in the lung & Mediastinum
" 5018	" 1238	Thoracic Surgery, Part III - Foreign Bodies in the Pericardium & Heart
" 5019	" 1241	Let there be Light (Neuropsychiatry)
" 5020	" 1243	Removal of Magnetic Foreign Bodies from the Eye
" 5021	" 1244	Removal of Intrathoracic Magnetic Foreign Bodies
" 5022	" 1245	Repair of Ruptured Membranous Urethra
" 5023	" 1246	Plastic Repair of Thigh Stump
" 5024	" 1262	Amputation Prostheses and Their Use; Part I Upper Extremity

"	5025	"	1263	Amputation Prostheses and Their Use: Part II Lower Extremity
"	5026	"	1264	Complicated Amputations - Case Reports
"	5027	"	1265	Schistosomiasis (Professional - Technical)
"	5028	"	1266	Sandfly Control
"	5029	"	1268	Intravenous Anesthesia
"	5030	"	1270	The Preparation & Insertion of Tantalum Plate
"	5031	"	1271	Below Knee Amputation
"	5032	"	1272	Radical Orchidectomy
"	5033	"	1273	Technique of Open Amputation
"	5034	"	1288	Therapeutic Exercise (Introduction)
"	5035	"	1296	Social Adjustment of the Blinded Soldier
"	5036	"	1298	The Mechanism of Cell Division
"	5037	"	1301	Abnormal Involuntary Movements
"	5038	"	1302	Disorders of Coordination
"	5039	"	1303	Disorders of Gait
"	5040	"	1304	Muscle Status
"	5041	"	1305	Reflexes
"	5042	"	1306	Skilled Acts
"	5043	"	1307	Oculomotor Disorder
"	5044	"	1308	Facial Palsy
"	5045	"	1309	Disorders of the Vestibular System
"	5046	"	1310	Trigeminal, Spinal Accessory and Hypoglossal
"	5057	"	1299	Surgery in Chest Disease
"	5063	TF 8-	1458	Anterior Acrylic Bridgework
"	5049	"	1269	Yaws
"	5051	"	1289	Therapeutic Exercise (Orthopedics)
"	5052	"	1316	To Hear Again
"	5056	"	1293	Therapeutic Exercise (Thoracic Surgery)
"	5060	"	1326	Animated Hematology
"	5062	"	1320	The Cineplastic Operation

IV. Medical Service Corps

A far-reaching change in the permanent organization of the Medical Department of the Army went into effect 5 August following President Truman's approval of legislation creating a Medical Service Corps in the regular establishment.

This legislation makes it possible for the first time to give Regular Army commissions to specialists in the scores of fields

now closely allied to medicine -- to bacteriologists, entomologists, psychologists, sanitary engineers, pharmacists, chemists, electronics experts and the like. These will be grouped together in a new corps under the Medical Department of the Army.

The need has been evident for a long time. Up to now the Medical Department has been made up of six corps -- Medical, Dental, Veterinary, Pharmacy, Nurse, and Women's Medical Specialists. It has been possible to commission specialists in other fields only in the reserve from which they could be called to service in a national emergency.

It became increasingly evident during the two World Wars, with the enormous ramifications of medical science that came about in this period, that greater and greater reliance must be placed on those other specialists for the proper treatment of sick and wounded. They could relieve the Army Medical Corps, in which only physicians can hold commissions, of a great deal of the increasing burden of clinical psychology, pharmacy, supply and hospital administration, certain phases of training and field medical service, and in special fields of research requiring specialized skills and training. Availability of the services of non-medical specialists freed the physician from an enormous load of responsibilities not strictly in his field and enabled him to spend more of his time in direct treatment of patients. It relieved him especially from arduous administrative duties.

During World War I, half the commissioned personnel of the Medical Department were physicians. In the last war, this percentage had fallen to about one-third, with the difference taken up largely by specialists in fields allied to medicine. This is bound to be more and more the situation in the future as the ramifications of medicine extend into other sciences and new problems arise.

It would have been impractical to have created a multiplicity of separate corps -- such as a Psychologists Corps or a Bacteriologists Corps. This would have involved a difficult administrative problem and probably much duplication of effort. Furthermore, such corps would have been set up with necessarily arbitrary restrictions in the form of educational requirements and the like. It is impossible to predict what kind of a specialist will be needed tomorrow.

Under the present legislation, the Surgeon General is free to use his discretion as the need arises. An expert in enzyme chemistry, for example, can be given a regular commission in the new Medical Service Corps with no more complications than would be involved in commissioning a brain surgeon in the Medical Corps.

The strength of the new corps will be prescribed by the Secretary of War. Grades will range from second lieutenant to colonel.

V. An Army Career In Physical Therapy

As a result of the passage of recent legislation, the Army now offers to graduates of approved Physical Therapy Training Courses a career which affords unusual opportunities.

Public Law 36 authorizes a Physical Therapist Section in the Women's Medical Specialist Corps of the Regular Army and provides for these officers all the benefits and privileges applicable to male commissioned officers of the Regular Army. This position offers an attractive opportunity for the young woman who is eager to direct her life into channels which will not only be most productive of personal happiness and satisfaction, but which will also insure professional advancement and development.

The War Department has recently authorized the establishment of a Physical Medicine Service in Army hospitals on the same organizational level as the other major services. Working in well-equipped departments under medical officers who have particular interest and training in this field, Physical Therapists are given opportunities for optimum professional guidance and growth. High standards of performance and alertness are maintained and study programs and conferences are encouraged for all Physical Therapists serving in Army hospitals.

Physical Therapists in the Army may be assigned to general or station hospitals in this country or overseas. Assignments are rotated so that the experience of each individual is varied. Every effort is made to give each officer the chance to develop her individual capabilities and potentialities in so far as the exigencies of the service will permit.

The Physical Therapist in the Army has unequalled opportunities for travel with its attendant cultural achievements and pleasurable experiences. Her overseas assignments provide unusual occasion for orientation to the peoples and customs of foreign lands.

Knowledge of professional practices of other countries may be attained first hand. The broader interest and enlightened perspective gained by extensive travel add greatly to the accomplishment of a full and colorful life.

From the economic standpoint, few careers offer advantages equal to those tendered to Physical Therapists by the Army. The financial compensation is above the average for members of this profession. Medical and dental care are factors of some consequence. In addition, retirement privileges far exceed those authorized in civilian positions. In short, an Army career permits living which is commensurate with her professional and personal qualifications.

Wherever she travels, her entree into Army circles provides companionship. She may always be a part of the pleasant social life

characteristic of Army Posts, both at home and overseas. Few other environments offer comparable recreational facilities and possibilities for entertainment. Valued friendships thrive in the prevailing atmosphere of common interest and in the knowledge that these contacts will be maintained and frequently renewed during a lifetime in the Army.

Tradition throughout the years has bestowed upon commissioned officers of the Regular Army an enviable prestige. This, properly regarded, is a source of pride and satisfaction to those who have chosen this life as a career. The advantages of a career as a Physical Therapist in the Army cannot be mentioned without reference to the wartime as well as to the peacetime program. The record of the Medical Department during the recent War is, by now, well known to all. To be an integral part of such an organization presents opportunities for service and experience which cannot but be of paramount interest and importance to the young Physical Therapist who now has under consideration the various avenues which are open to her.

VI. WD AGO Form 469

Reports of damaged shipments of medical property have been received on locally originated forms. All installations receiving damaged or otherwise unsatisfactory shipments should prepare WD AGO Form 469, "Report of Improper Shipment" and distribute it as outlined in WD Circular 305, 1945.

VII. "Mechanical Cow"

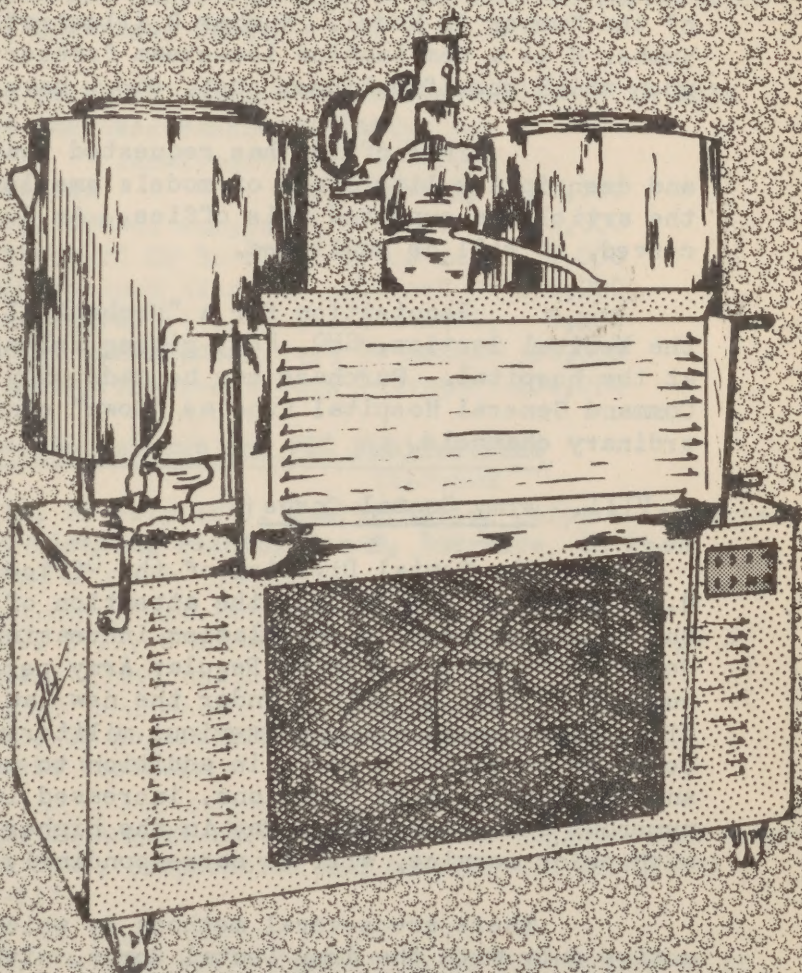
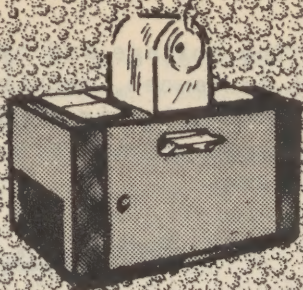
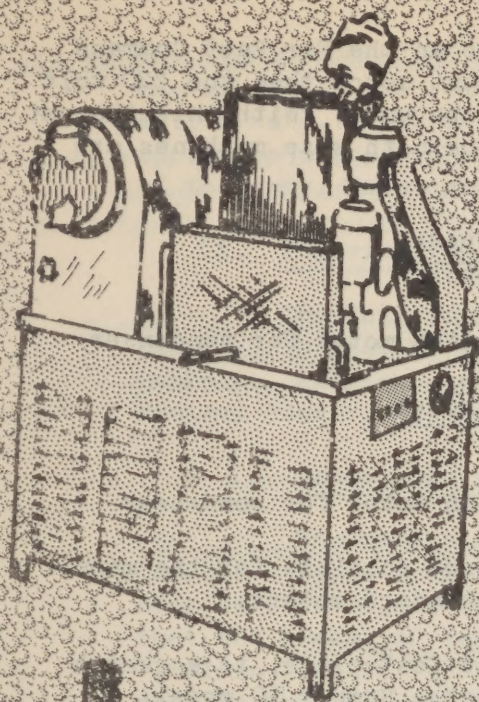
A "Mechanical Cow" enables hospitals to have available, whenever needed, a supply of pasturized, homogenized and clarified milk, cream or ice-cream mix, and to control the quality of such products by varying the amounts of the fat constituent. It is of further value in preventing separation of the solid and liquid components after thawing of frozen, fresh milk.

In response to inquiry, the following information to date has been received concerning description of the different types, their cost, horse-power, voltage and cycle requirements.

Number 10, twin tank model, 40 quarts per hour complete with condensing unit, net weight 750 pounds, gross weight 860 pounds -- electrically heated (220 V, 60 cy, 3 ph AC). . . . \$1500.00.

Number 40, twin tank model, 160 quarts per hour complete with condensing unit, net weight 1,665 pounds, gross 1,820 pounds -- electrically heated (220 V, 60 cy, 3 ph ACP) \$2950.00.

The prices are F.O.B. Stateside, for export crating there would be an extra charge of \$100.00 for this packing on the Number 10, and \$125.00 on the Number 40.



MECHANICAL COW

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The voltage and cycles in use in the Far East Command will, in most instances, require a different motor than the 220 volt 60 cycle standard which is supplied with the unit. With this thought in mind, type motors which are required for both size machines are listed as follows:

Number 10, Twin Tank Model

- 1 - 1 HP 3450 RPM Motor
- 2 - 1/4 HP 1725 RPM
- 1 - 3/4 HP Refrigeration motor for condenser

Number 40, Twin Tank Model

- 1 - 1 HP 3450 RPM
- 2 - 1/4 HP 1725 RPM
- 1 - 3 HP refrigeration motor for condenser

At the present time, it is not possible for the manufacturer to equip the machines with non-standard motors.

Figure A. on the "Mechanical Cow" plate, is a sketch of the Number 40 Model. Number B illustrates Number 10 model. Number C is a combination ice-cream freezer and hardening cabinet upon which specifications, cost, etc., have not been received.

This office has requested that specifications, costs and descriptive literature of models smaller than these mentioned in the article be supplied this office. As further information is received, it will be published.

Requisition for a "Mechanical Cow" should be made to the Medical Section, GHQ, FEC, giving voltage and cycles available at the hospital. Purchase can be made only from the Far East Command General Hospital Fund as "Cows" cannot be supplied through ordinary channels.

VIII. Army Dental Corps

The Dental Division of the Office of The Surgeon General, U. S. Army, wishes to call the attention of qualified dentists to the recent passage of legislation increasing the pay of volunteer dental officers, including Regular Army personnel, by a flat one hundred dollars a month. Under the new law a recently appointed first Lieutenant, with no previous military experience, may receive up to \$5,004 a year, in addition to medical care for himself and his family, paid vacations, increased income tax exemption, and numerous other benefits. Pay in the higher grades, for officers with prior service, will be correspondingly augmented.

There are several methods by which dentists may obtain active duty with the Army Dental Corps, either with or without previous service. Former dental officers who are interested in permanent commissions in the Regular Army and who have not already made application for integration, may still submit such application until the fifteenth of September, this year. Officers holding commissions in the Dental Corps Reserve may volunteer for recall to active duty at

any time. Qualified dentists who do not now hold Reserve commissions may apply for such commission requesting simultaneous assignment to active duty. Applications or requests for additional information, should be addressed to the Office of The Surgeon General, Department of the Army, Washington 25, D. C.

IX. Veterinary Research Laboratory Moved

The Veterinary Research Laboratory (9935 TSU-SCO), which has been located at Robinson Quartermaster Depot (Remount), Fort Robinson, Nebraska, since September 1945, has been moved to the Army Medical Center, Washington, D. C.

X. Dental Division

The number of Class 1 dental cases treated in the Far East Command dropped from 7,839 in June to 6,568 in July; Class 2 cases dropped from 70,641 to 67,458 during the same period. Considering that the number of dental officer duty days decreased from that of 7,361 in June to 7,367 for July, the figures reflect an improvement despite the over-all numerical drop.

During the month of July, the Army Dental Corps in this command accomplished the following work load:

Restorations	approximately	29,000
Dentures, new		2,000
Extractions		8,000
Prophylaxis		5,000
Teeth replaced		8,000
Misc other operations		52,000
Total operations		104,000

XI. Recent War Department and FEC Publications

AR 30-2135, 25 July 1947, Quartermaster Corps - Laundries and Dry-Cleaning Plants, Par 6, "Service, to Whom Furnished"

AR 30-2210, C-10, 6 August 1947, Quartermaster Corps - Rations.

AR 30-3050, 20 August 1947, Quartermaster Corps - Orthopedic Footwear.

AR 40-215, 12 August 1947, Immunization Register and Other Medical Data, Preparation and Disposition of WD AGO Form 8-117.

AR 40-225, 24 July 1947, Prevention of Dissemination of Infectious Diseases and Pests in International Travel and Shipping; Foreign Quarantine.

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- AR 40-590, C-2, 21 August 1947, Administration of Hospitals - General Provisions.
- CIR 173, WD, 2 July 1947, Sec III, Beneficiaries of Bureau of Employees' Compensation, Federal Security Agency (Modification of AR 40-560 Applicable to the Fiscal Year 1948 only).
- CIR 199, WD, 29 July 1947, Sec I, Appointment of Female Officers to Army Nurse Corps and Women's Medical Specialist Corps, Medical Department, Regular Army, (WD Cir 113, 47 amended).
- CIR 201, WD, 1 August 1947, WD Reorganization.
- CIR 202, WD, 1 August 1947, Reception Processing of Enlisted Men.
- CIR 209, WD, 8 August 1947, Sec VI, Records.
- CIR 212, WD, 9 August 1947, Sec V, Installation.
- CIR 213, WD, 9 August 1947, Appointments to US Military Academy Allotted Enlisted Men In The Regular Army, Par j. Physical Qualifications.
- CIR 217, WD, 13 August 1947, Sec III, Circular, (Extends Expiration Dates of WD Cirs. 43 and 195, '47 Pertaining To Training In Basic Medical Subjects); Sec VI, Fuel (Pars 3 a (2) & (8)); Sec X, Retirement Of Officers By Reason Of Physical Disability While Serving Under A Temporary Appointment In A Higher Grade.
- CIR 221, WD, 15 August 1947, Sec VIII, (T/O & E 17-25 Amended)
- CIR 224, JWD, 16 August 1947, United States Military Academy Preparatory School, Par 1 b (2), Physical Examination of Candidates Outside Continental United States.
- CIR 225, WD, 16 August 1947, Changes In Administrative Terminology And Procedures Under National Security Act of 1947.
- CIR 226, WD, 19 August 1947, Sec II, ANC Reserve Corps And Women's Medical Specialists Corps Reserve (WD Cir 189, '47 Amended).
- CIR 227, WD, 20 August 1947, Sec II, Classifications; Sec IV, Venereal Disease Control.
- CIR 236, WD, 28 August 1947, Sec II, Mounts, Sec IV, Rosters (Patient).

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CIR 237, WD, 29 August 1947, Sec I, Army-Navy Medical Procurement Office (Change of Address). Sec V, Pregnancy; Sec VI, Radioactive Isotopes and Other Dangerous New Chemicals; Sec IX, Rescission, (Certain WD Supply Catalog).

TRAINING CIRCULAR No. 4, WD, 7 August 1947. Reading List For Officers.

TRAINING CIRCULAR NO. 5, WD, 12 August 1947, Sec II, Supplementary Education and Training of Officers.

MEMO 40-1005-1, C-1, 15 August 1947, Essential Technical Data Report, (Reports Control Symbol Med-35).

MEMO 210-70-2 WD, 18 August 1947; Operation of Library Program - Par 2 b, Importance of Library Service at General Hospitals.

MEMO 700-50-9, WD, C-5, 25 July 1947, Returned Materiel.

WD Pamphlet 29-11, May 1947, Movement Regulations For Oversea Movement of Units, Casuals, Replacements, and Individuals.

Supply Bulletin, SB 38-4, WD, 29 May 1947, CONFIDENTIAL Replacement Factors and Consumption Rates, World War II, War Department, Chapter 4, Medical Department.

Mobilization Regulations 301, C-9, 12 August 1947, Par 7 b Overhead Installations and Units.

TO & E, T/O, T/E, & T/A List, WD, 1 July 1947.

T/A 20-130 T - FEC, 24 July 1947, Overhead Bulk Allotment Personnel For Japan and Korea Occupation Areas.

CIR 88, GHQ, FEC, 18 August 1947, Field Ration.

CIR 91, GHQ, FEC, 29 August 1947, Morning Reports and Strength Accounting.

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PART II

<u>SUBJECT</u>	<u>TECHNICAL</u>	<u>SECTION</u>
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Meckel's Diverticulum With Obstruction (Case Reports)		XV
Tracheotomy In Bulbar Poliomyelitis		XVI

✓ XII. "Shell Shock" Cases

Real "shell shock" -- a relatively rare condition -- has been found by Army medical officers. It is a hitherto undescribed medical syndrome -- which means a complex of symptoms. It is a mental and physical condition due entirely to the effect of blast on the tissues of the brain.

In World War I, practically every neuropsychiatric case resulting from combat was labelled "shell shock" until it was discovered that many such cases had never been within miles of an exploding shell. This made the term meaningless and it was dropped altogether from medical language, although it persisted among the lay public.

The majority of combat breakdowns in World War II were labelled "combat fatigue" and special centers were set up back of the front for dealing with them. Naturally all the causes which bring about nervous and mental conditions among men anywhere also operated in the Army.

It proved extremely difficult to isolate any brain syndrome due to blast waves alone. Usually, where they were suspected, the indications were that the blast waves had served only to exaggerate and bring to the fore previously existing pathological conditions.

Now the existence of a limited number of cases of pure shell shock -- now called "closed head injury syndrome due to blast" -- is established by an intensive study reported in the October issue of the Bulletin, official Medical Corps Publication.

Thirty-four cases were studied in which no other cause for the pathological condition could be found. The men were studied from 50 days to a year after being subjected to the blast waves.

The main complaints of the blast group were headache, ringing in the ears, deafness and anxiety. Other symptoms included dizziness, (not true vertigo), daze and confusion, sudden attacks in which everything went black, weakness, fatigue, chest pains and backache. Apathy, mental lethargy and many physical complaints were also

When seen two to twelve months after injury, the syndrome complex was little changed. Ringing in the ears had disappeared in some cases and deafness had improved considerably. Backaches, dizziness and blackouts still were mentioned frequently. When questioned, none of the men would acknowledge retention of even 75 per cent normal energy. A third indicated poor memory for recent events but in none was memory loss a disability. Moderate depression was noted in several.

"In the total synthesis a more concrete concept of the syndrome emerges" the report said. "The men had been stunned and often rendered unconscious by nearby blast. Two-thirds of the group had been unconscious. A third showed ruptured ear drums. Anxiety, tension or dullness and apathy were present in 65 per cent. Headaches were heterogeneous in character. They were usually described as a 'dull ache' or sharp jabs of pain in the scalp. About 20 per cent showed minor but definite neurological changes."

Whether there is definite alteration in the brain has been impossible to determine, the report stated. The indications are, however, that this is true. Even so, the study explains, it need not cause any permanent mental or nervous disability and on the whole the prognosis for shell shock is good.

XIII. Ekiri Commission

A three-member commission has reported that it has succeeded in its mission of discovering the causes of Ekiri, a summer affliction which affects Japanese children with a high mortality rate.

Dr. Dodd who is a pediatrician of the College of Medicine, University of Cincinnati, was in charge of the clinical work done by the scientists. The other two members of the Ekiri Commission were Dr. Samuel Rapoport, biochemist from the Children's Hospital Research Foundation, College of Medicine, University of Cincinnati, and Dr. John Buddingh, pathologist, bacteriologist, and virologist from the Vanderbilt University School of Medicine in Nashville, Tennessee.

From their studies, they reached the conclusion that Ekiri represents tetany which manifests itself in involuntary muscular contraction or hyperirritability of the peripheral and central nervous systems. In severe cases, continuous convulsions occur. Contraction of the muscles which control the respiration may make it impossible for the children to breathe, they become unconscious, and many die.

It has long been medical knowledge that tetany is usually caused by a lowering of the calcium content of the bloodstream. The Japanese diet is very deficient in calcium. This deficiency causes low body stores of calcium and is exemplified in osteoporosis in Japanese children. We suspect that many Japanese children suffer from latent tetany, which is a state of calcium deficiency without

severe signs. Any disease or infection which throws additional strain on the child's system may further reduce the calcium content of the blood stream and the patient suffers from dangerous tetany along with the initial ailment.

During the summer months, the prevalent disease is dysentery and even though the disease may be a mild variety, the infection produces a sudden high fever and, as a result, latent tetany becomes manifest. The high external temperature and the tendency of parents to put heavy covers on the child increase the height of the fever and soon it is advanced tetany rather than dysentery which produces severe illness and often death. It is the presence of tetany which leads to the diagnosis of Ekiri rather than dysentery.

All patients with Ekiri and young patients with dysentery should be treated with calcium. The effect of a single dose is short-lived, however, and a patient who is desperately ill should receive repeated treatment. The treatment has its own dangers inasmuch as an over-dose of calcium may cause stoppage of the heart and therefore should be carefully watched by the medical attendant. Early treatment is essential in defeating Ekiri because brain damage may result. When this occurs, even the most energetic treatment is useless.

It is important to keep the patients cool at all times. Patients should be only lightly covered and when their temperatures begin to rise, they should be sponged with cool water. Patients lose water with fever and lose salt-containing fluids by vomiting and diarrhea. Fluids can best be replaced by subcutaneous administration of a mixture of equal parts of 5 per cent glucose and physiological saline. Patients should be urged to take as much fluid as possible by mouth.

When the appetite returns, the child should receive milk. If milk is not available, a supplement of calcium lactate or calcium carbonate should be added to his food. The average Japanese adult gets only about 0.3 grams of calcium a day, whereas one gram a day is the optimal requirement. Since children who are off breast milk eat the same diet as adults, only in smaller amounts, they get only one-half to two-thirds of this amount of 0.15 to 0.2 grams of calcium a day. As a preventative measure against Ekiri, it is important that Japanese children receive a larger supply of calcium in their daily diet. This can best be accomplished through milk.

XIV. "Is Gonorrhea A Medical Problem?" by Frank C. Vogt, Capt., M. C., A.U.S.

Gonorrhea is one of the chief problems of the dispensary medical officer for several reasons. It is the most frequently encountered venereal disease, and the only one which is treated almost exclusively in a dispensary. Furthermore, the dispensary medical officer is usually the venereal disease control officer for the units given medical care by his dispensary. Resultingly,

When seen two to twelve months after injury, the syndrome complex was little changed. Ringing in the ears had disappeared in some cases and deafness had improved considerably. Backaches, dizziness and blackouts still were mentioned frequently. When questioned, none of the men would acknowledge retention of even 75 per cent normal energy. A third indicated poor memory for recent events but in none was memory loss a disability. Moderate depression was noted in several.

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It has long been medical knowledge that tetany is usually caused by a lowering of the calcium content of the bloodstream. The Japanese diet is very deficient in calcium. This deficiency causes low body stores of calcium and is exemplified in osteoporosis in Japanese children. We suspect that many Japanese children suffer from latent tetany, which is a state of calcium deficiency without

severe signs. Any disease or infection which throws additional strain on the child's system may further reduce the calcium content of the blood stream and the patient suffers from dangerous tetany along with the initial ailment.

During the summer months, the prevalent disease is dysentery and even though the disease may be a mild variety, the infection produces a sudden high fever and, as a result, latent tetany becomes manifest. The high external temperature and the tendency of parents to put heavy covers on the child increase the height of the fever and soon it is advanced tetany rather than dysentery which produces severe illness and often death. It is the presence of tetany which leads to the diagnosis of Ekiri rather than dysentery.

All patients with Ekiri and young patients with dysentery should be treated with calcium. The effect of a single dose is short-lived, however, and a patient who is desperately ill should receive repeated treatment. The treatment has its own dangers inasmuch as an over-dose of calcium may cause stoppage of the heart and therefore should be carefully watched by the medical attendant. Early treatment is essential in defeating Ekiri because brain damage may result. When this occurs, even the most energetic treatment is useless.

It is important to keep the patients cool at all times. Patients should be only lightly covered and when their temperatures begin to rise, they should be sponged with cool water. Patients lose water with fever and lose salt-containing fluids by vomiting and diarrhea. Fluids can best be replaced by subcutaneous administration of a mixture of equal parts of 5 per cent glucose and physiological saline. Patients should be urged to take as much fluid as possible by mouth.

When the appetite returns, the child should receive milk. If milk is not available, a supplement of calcium lactate or calcium carbonate should be added to his food. The average Japanese adult gets only about 0.3 grams of calcium a day, whereas one gram a day is the optimal requirement. Since children who are off breast milk eat the same diet as adults, only in smaller amounts, they get only one-half to two-thirds of this amount of 0.15 to 0.2 grams of calcium a day. As a preventative measure against Ekiri, it is important that Japanese children receive a larger supply of calcium in their daily diet. This can best be accomplished through milk.

XIV. "Is Gonorrhea A Medical Problem?" by Frank C. Vogt, Capt., M. C., A.U.S.

Gonorrhea is one of the chief problems of the dispensary medical officer for several reasons. It is the most frequently encountered venereal disease, and the only one which is treated almost exclusively in a dispensary. Furthermore, the dispensary medical officer is usually the venereal disease control officer for the units given medical care by his dispensary. Resultingly,

he is engaged daily in the prevention, diagnosis, and treatment of this disease.

The purpose of this paper is to present data obtained from a review of a series of cases of gonorrhea treated by the writer, who is a dispensary medical officer. The patients who comprise this series may be divided into two groups, one white, the other negro, who have been living in two separate camp areas about a quarter of a mile apart. This series is composed of only those cases about which sufficient and reasonably reliable information is known, and is otherwise unselected.

Personal Data

In thinking about any disease, there are many questions which arise, some of which can be answered by studying the patient as an individual. It might be well to begin by learning something about the men who compose this series.

For instance, how old are they? The average age of 60 cases in the white group was 21.3 years, while in a group of 94 negroes, the average age was 20.8 years. However, graphs 1 and 2 indicate the high incidence for those who are only 19 years old.

How long have these men been in the Army? This is shown in Table 1, which indicates the high incidence in those with less than one year service.

Table 1

Service in Months

White: 60 cases

Negro: 93 cases

Months	White	Negro	Months	White	Negro	Months	White	Negro
4	1	1	20		2	33		1
5	2		21			36	4	4
6	7	8	22			38		1
7	3	10	23			45		2
8	4	7	24	2	2	46	1	
9	5	5	25			47		1
10	4	7	26		1	48	1	5
11	3	6	27		1	51	1	
12	5	7	28			54	2	2
13		1	29	1		58		1
14		1	30	2	4	60	2	1
15	1	1	31			72	1	1
16	2	2	32			84	1	1
17		2	33		1	96	1	
18	1	6	34			121	1	
19	2		35			132	1	

What about rank? Table 2 shows the number of cases for each grade by month, for both groups; the (/) numerals indicate negro, the other, white cases. The incidence among white non-commissioned officers is worthy of mention; there were one quarter as many cases among staff sergeants as there were among privates, a disproportionate incidence in terms of expectation.

Table 2

Rank	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
M/Sgt											
1st/Sgt											
T/Sgt											
S/Sgt	1	1		1			1	1	1	1	
T/3											
Sgt			'1	'1			'1				1
T/4		1		'1	1	1	'2	1			2
Cpl	1		'1				1				
T/5		'2	'1		1	'1	2	'2	2	'3	3
Pfc	1	'8	'9	1	'4	'2	2	'5	1	'3	2
Pvt		5	3	10	3	10	2	5	2	4	5

' / - Negro

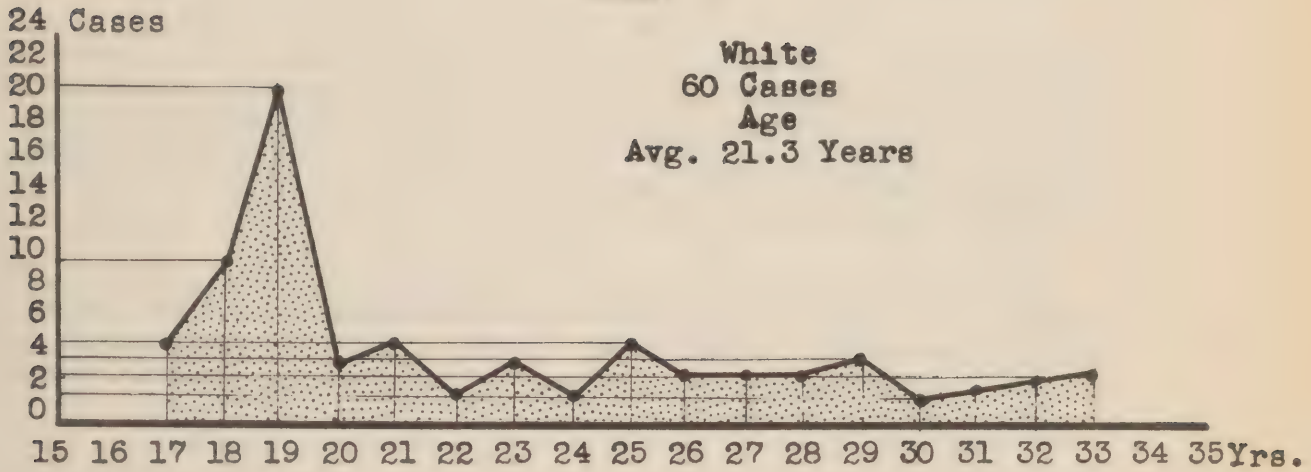
Table 3 shows the incidence by month for both groups, both in number of cases, and by rate per thousand per annum, to compensate for strength variation. It will be noted that the variation in the number of cases is less than the variation in the rate, suggesting the presence of a small, numerically relatively stable group acquiring gonorrhea.

Table 3

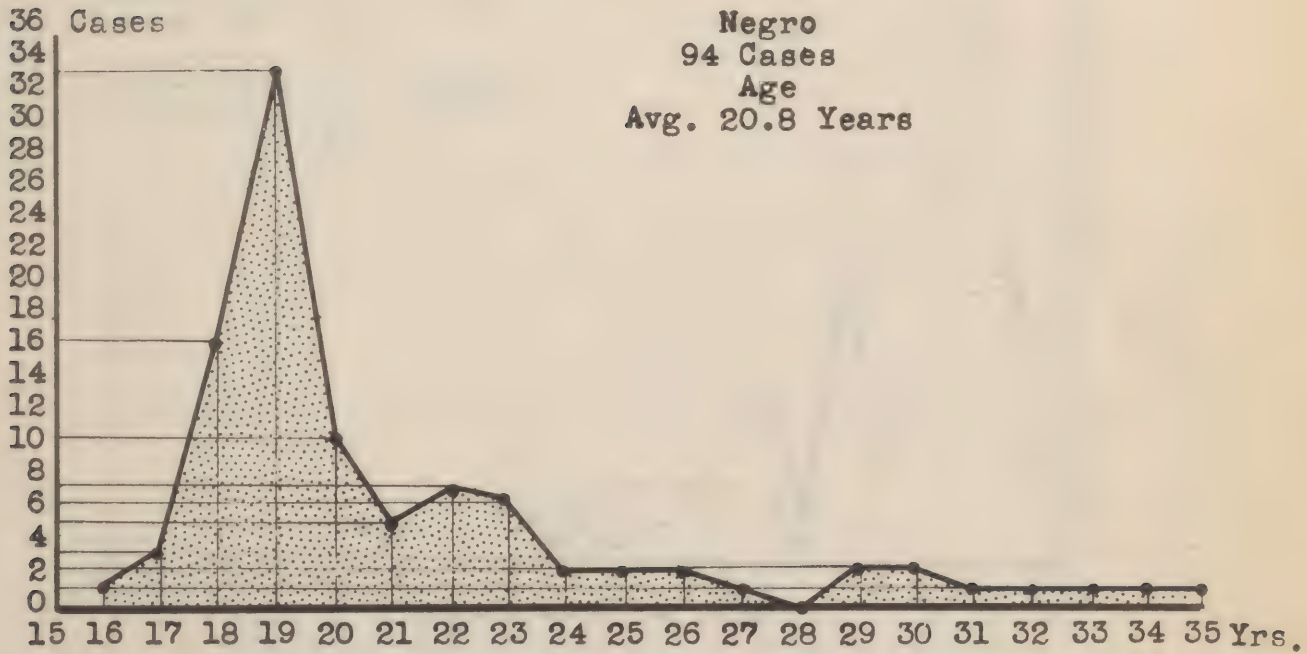
Incidence by Month

White			Negro	
Cases	Rate		Cases	Rate
1	31	Sept	15	601
1	38	Oct	25	777
10	296	Nov	19	611
3	37	Dec	5	248
8	73	Jan	13	629
10	89	Feb	11	748
10	185	Mar	8	1051
13	259	Apr	4	625
4	108	May		
1	33	Jun		
8	342	Jul		

GRAPH 1



GRAPH 2



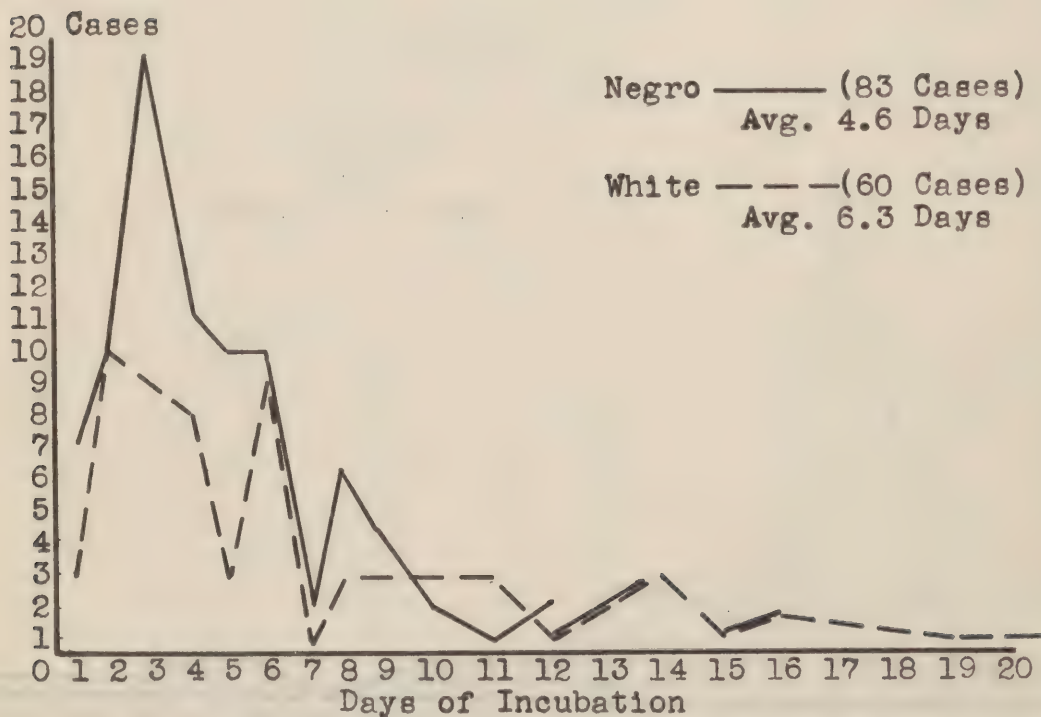
Summary

Until a few years ago, the word gonorrhea, or the specific term for any other venereal disease, was not used as openly by non-medical people as it is today. Instead, venereal disease was alluded to as "social disease". Perhaps that it is a term which surpasses its prudishness by its accuracy. Gonorrhea does not, as a disease, present much as a strictly medical problem. Its diagnosis and treatment, especially when compared to many other diseases, is simple; its cure is essentially inevitable, its complications relatively rare.

But the seriousness of the gonorrhea problem can scarcely be underestimated. Its incidence is high, and apparently still increasing. The gonorrhea rate necessarily reflects the incidence of sexual promiscuity and all that the latter implies. It is extremely difficult to reduce to figures or graphs the effects it has on marriages, and on the peace of mind of its victims. As such, gonorrhea may well be called a "social disease", for it is indeed a disease of society.

Therefore, while it certainly involves the medical profession, it is also a problem to be faced with definite action by all who are in positions involving leadership and guidance, and this must include all officers, not merely medical officers. For, strictly speaking, gonorrhea is not a medical problem.

GRAPH 3



Some aspects of the social factors involved are perhaps worthy of consideration. Table 4 shows that most of the men gave no name at all when asked to identify the female involved. While in some cases this was due to a desire on the part of the patient not to reveal the name, in most cases it is felt that the patient simply did not know the name of the contact.

Table 4

Name of Contact

	White	Negro
Full name	6	1
First name	18	23
No name	36	68
	60	92

Table 5 shows essentially the same situation in respect to the address of the contact, although members of the group which gave no address were sometimes able to name a general region of the city.

Table 5

Address

	White	Negro
Street and number	2	1
Street alone	6	4
No address	48	80

The two camps are surrounded by native houses, and a barrio is located about a half mile away. Table 6 indicates that for the Negro group, more than twice as many infections were acquired within a half mile of camp than in the city area proper, while, in contrast, more than twice as many whites acquired their infections at some distance from the camp. However, a difference in the availability of transportation undoubtedly plays an important part in determining this particular factor.

Table 6

Distance

	White	Negro
Village near camp	20	58
City of other areas	42	27

Table 7 shows that, for both groups, individual effort was responsible for obtaining the female involved in nearly all cases. As shown in Table 8, the majority of contacts were pick-ups, rather than inmates of established brothels.

Table 7

Type of Contact

	White	Negro
Own effort	55	81
Friend	3	5
Solicitor	3	4

Table 8

Place of Contact

	White	Negro
Pick-up	51	67
Brothel	12	24

Medical Aspects

The medical aspects of these cases were, for the most part, not unusual. Diagnosis was established on the basis of history, signs and symptoms, and in all cases a positive smear. Whenever necessary, and this was seldom, a culture was done.

Essentially all patients reported to the dispensary within 24 hours from the onset of symptoms. The chief exception was a small group detected on inspection, who, incidentally, said either that they had not noted the obvious discharge, or were just about to come to the dispensary when the inspection interfered.

A summary of prophylaxis allegedly used by 60 White and 90 Negro patients with gonorrhea is given in Table 9. The cases are divided into two groups, one group is those who stated that they had not had any alcoholic drinks at all; for convenience, the other, representing various degrees of intoxication, are grouped as non-sober. Obviously, whether the precautions actually were taken, and certainly if they were taken properly, is open to question. In any event, all were equally unsuccessful.

Table 9

Prophylaxis

Prophylaxis	White		Negro	
	Non-sober	Sober	Non-sober	Sober
Condom alone	5	6	4	24
Condom and pro-kit	4	6	9	23
Pro-kit alone	7	7	4	11
Condom and liquid pro	1	-	-	-
Pro-kit and liquid pro	-	1	-	-
Condom, pro-kit, liquid	4	5	1	7
Nothing	9	5	2	5
	<hr/> 30	<hr/> 30	<hr/> 20	<hr/> 70

Despite frequent demonstration and instruction in how to test condoms, it is highly significant that of those who said they had used condoms, only two stated they had tested them. Neither of the two was able to explain promptly what method of testing they had employed.

An interesting difference between the two groups in respect to incubation period was noted, as is shown in Graph 3. For the Negroes, the average incubation period for 83 cases was 4.6 days, while it was 6.3 for the White group. Perhaps this can best be explained in that the exposure rate in the Negroes was higher than in the Whites, and the time of the last intercourse, but not necessarily the one resulting in the evident infection, being given, the supposed incubation period seemed to be shorter for the Negroes.

All the patients in this group were treated with, as determined by labeled potency, 400,000 units of penicillin, given intramuscularly, 50,000 units every two hours for 8 injections.

All of these patients were given appointment slips which stated specifically the dates they were to return for their initial follow-up visits (once a week for three weeks). Table 10 summarizes the cooperativeness (i.e. compliance with a proper, written order) found. A patient was judged to be cooperative if he came in for the three visits, and the case is listed under Yes. If he did not, and had to be sent for, the case is listed under the No column. It will be noted that those who cooperated are almost equal numerically to those who did not cooperate, and that the Negro group was decidedly less cooperative than the white group.

Table 10
Cooperation

Group	Cooperative	
	Yes	No
White (60)	39	21
Negro (83)	30	53
	<hr/> 69	<hr/> 74

As a generalization, it would appear that cooperativeness as defined above is also an index of the reinfection rate. All cases who are grouped as cooperative were entirely asymptomatic at the first follow-up visit, one week after receiving penicillin; most of these patients stated they were asymptomatic within 24 hours of the start of treatment. In contrast, in the group of patients who had to be located and brought to the dispensary for follow-up examination, some were found to have positive smears, and nearly all of these admitted intercourse subsequent to treatment. There was no case of "relapse" in this series in which there was not considerable suspicion of exposure subsequent to treatment.

XV. Meckel's Diverticulum With Obstruction

Two recent cases of Meckel's diverticulum complicated by small bowel obstruction are presented by Captain T. L. Trayson 49th General Hospital, with a brief general discussion by Lt. Col. W. F. Bowers, MC, Surgical Consultant, General Headquarters, Far East Command.

Case Presentation:

The first patient was a 31 year old male negro non-commissioned officer, W.S., who was admitted to the 49th General Hospital on 8 May 1947 with a transfer diagnosis of chronic peritonitis, probably tuberculous in origin.

The present illness began two months before admission when intermittent abdominal cramps in the epigastrium with progressive enlargement of the abdomen were noted. There had been a 10 pound weight loss but stools had been normal in color and character. Cramps and distention increased in severity till the day before admission when the very severe cramps were accompanied by eight or ten episodes of vomiting.

Physical findings on admission were limited to the abdomen which was markedly distended. Peristalsis was grossly audible and there was generalized abdominal tenderness, most marked in the left upper quadrant. Rectal examination disclosed what appeared to be an extrinsic mass in the region above the prostate and during manipulation of this mass the patient passed a large amount of flatus. Following this, more flatus was passed and the patient became completely decompressed. A presumptive diagnosis of 3rd degree prolapse of the rectum (intussusception of the sigmoid) was made and the foot of the patient's bed was elevated. In this position he was comfortable and without distention but on being allowed out of bed, marked distention recurred. This again was relieved by the head-low position which seemed to confirm the diagnosis. Barium enema at this time demonstrated inability to pass the contrast medium beyond the splenic flexure.

Laparotomy was deemed advisable and this was carried out on 2 June 1947 with the anticipation that a Moschovitz procedure for obliteration of the pelvic cul-de-sac would be indicated. On exploration, the descending colon and sigmoid were found to be normal and not redundant. However, a peculiar peritoneum-covered mass in the pelvis was discovered and this proved to be an internal hernia from which loops of small bowel were removed. Distal to this point, the terminal ileum was the site of marked lymphedema which almost obliterated the lumen. In dealing with the sac of the internal hernia, this was found to be made up of abnormal folds of peritoneum arising from a very large Meckel's diverticulum which was kinked on itself, being attached to its own mesentery and to the posterior pelvic wall by a congenital partially obliterated vessel arising at its tip. The diverticulum was excised, using the principle of longitudinal elliptical incision and

transverse closure with open technique and silk suture. The hernial sac was obliterated by re-peritonealization. In view of the extensive procedure and the marked lymphedema of the terminal ileum a tunnel type enterostomy over a #14 catheter was established proximal to the point of origin of the diverticulum. At this point, the X-ray finding of splenic flexure obstruction was mentioned but it was not felt advisable to prolong the procedure further and closure was accomplished. The postoperative course was uneventful until the enterostomy tube was removed after X-ray confirmation of patency of the lumen on the tenth day. Subsequently, there was gradual abdominal distention and X-ray examination showed a markedly dilated transverse colon with a fluid level. Five days after removal of the enterostomy, reoperation revealed a constricting inoperable carcinoma of the splenic flexure with involvement of the local lymph nodes. Because the patient's general condition was not good and because of the acute obstruction, a definitive procedure seemed inadvisable and an enterostomy was re-established. On 28 June 1947, a permanent colostomy was made in the region of the hepatic flexure and later the patient was returned to the ZI for further treatment and disposition.

Discussion:

Pertinent points are discussed in the order in which they appear in the case report.

1. Abdominal Distention

The presence of abdominal distention in this case brings up the differential diagnosis between acute and chronic types of distention. In the case of chronic abdominal distention, the bowel wall is thickened due to hypertrophy of the muscle layers as a result of the increased resistance to passage of luminal content. For this reason, in chronic distention, bowel loops frequently are palpable through the abdominal wall. Furthermore, in chronic distention, the bowel wall nerve endings have been accommodated to the increased intraluminal pressure so that tenderness is usually absent. In this patient then, since no loops were palpable and since tenderness was present, an acute distention was presumed to be present. The presence of re-bound tenderness indicates a greater degree of peritoneal irritation which would make one think of strangulation obstruction or perforation of a hollow viscus. Re-bound tenderness being absent in this case, a simple mechanical obstruction was thought to be present.

2. Large Bowel Versus Small Bowel Obstruction

In 60 per cent of people, the ileo-cecal valve is competent so that reflux from the colon into the small bowel is impossible. This is the reason why large bowel obstruction in the majority of cases is an acute surgical emergency because the competent ileo-cecal valve makes a closed loop of the large bowel which tends to distend and rupture. In the other 30 per cent of individuals, the ileo-cecal valve is incompetent so that large bowel obstruction is followed by large and small bowel distention. An X-ray flat plate

which shows large and small bowel accumulation of gas may represent paralytic ileus but with physical findings of audible peristalsis, dynamic obstruction is presumed to be present. In this particular case, subsequent findings proved that a mechanical obstruction was present and since both large and small bowel were distended, an incompetent ileo-cecal valve must be present.

3. Colonic Intussusception

A first degree rectal prolapse begins at the level of the sphincters. A second degree prolapse begins at a point slightly higher and a third degree prolapse begins at a level sufficiently high that there is no external protrusion. This type of prolapse then, really is a sigmoid intussusception. Sigmoid intussusception is a rare condition which usually is mis-diagnosed but was thought to be present in this case because of the fact that assuming the upright position was routinely followed by abdominal distention, whereas, placing the patient in the head-low position was followed by abdominal decompression. This together with the finding of an intrinsic mass on rectal examination seemed to confirm the diagnosis. The treatment for this type of prolapse is by the abdominal route and consists of reducing the prolapse with fixation by multiple purse-string sutures to obliterate the cavity of the true pelvis. This is the Moschovitz operation. In this particular instance, the presence of an unsuspected internal hernia gave the same findings as the sigmoid intussusception.

4. Internal Hernia

The most common internal hernias lie in the upper or mid-abdomen and frequently involve abnormalities of the lesser peritoneal sac. In this particular case, the internal hernial sac was formed by abnormal mesenteric folds and by a very long Meckel's diverticulum. This diverticulum was attached deep in the pelvis so that the loop of small bowel incarcerated in the sac caused an obstruction of the large bowel. Placing the patient in the head-low position gave sufficient reduction of this hernia to allow abdominal decompression.

5. Mechanism of Lymphedema

The marked lymphedema of the terminal ileum was similar to Crohn's Disease or regional ileitis. However, in this case, the mechanism of development seems to be fairly clear. The pressure from the internal hernia on the root of the mesentery of the small bowel apparently was sufficient to cause extravasation of lymphatic fluid.

6. Meckel's Diverticulum

A short Meckel's diverticulum with a wide mouth frequently is found on abdominal exploration and ordinarily requires no treatment. It is realized that in certain instances, such a diverticulum contains abberant gastric mucosa which may ulcerate and become the site of vigorous hemorrhage. This, however, is rare. The diverticulum with a large

mouth rarely becomes obstructed. A longer diverticulum or one with a narrow mouth should be dealt with surgically because the diverticulum may become obstructed or adjacent loops may be twisted around the diverticulum. In some instances the abnormal mesenteric attachment of the diverticulum may cause obstruction of adjacent loops. In these situations, the diverticulum must be dealt with by excision. In this case, the end of the diverticulum was denuded in dealing with the internal hernial sac. Re-peritonealization of the end of the diverticulum is a dangerous procedure because intussusception of the diverticulum may follow and cause serious bowel obstruction. For this reason, excision of the diverticulum was decided upon. The question of "opened" versus "closed" resection next was considered. The open procedure in the presence of acute bowel obstruction is dangerous because formerly, the slightest peritoneal contamination was fatal in such cases. Now with almost routine use of penicillin, this danger largely is obviated. However, a closed resection probably is preferable if suitable instruments are available. The necessity for special instruments for closed anastomosis makes this procedure less available and in this instance was the cause of open resection being employed. The Heinnecke-Mikulicz principle of longitudinal incision with transverse closure assures an adequate lumen and its application must always be considered in small bowel closure. Longitudinal closure is apt to diminish the lumen to a point where chronic obstruction may develop.

7. Ileostomy

Ileostomy formerly very frequently was employed in the treatment of intestinal obstruction but with the innovation of the indwelling suction tube, necessity for its use has diminished. In this instance, due to the fact that there was marked lymphedema of the terminal ileum and also because of the fact that the internal hernia and diverticulum had been surgically dealt with, it was anticipated that paralytic ileus would be present for several days post-operatively. The indwelling suction tube functions very poorly in the case of paralytic ileus due to the absence of peristalsis. For these reasons, an ileostomy was decided upon to be sure that adequate drainage would prevent stretching of the suture lines. The enterostomy tube ordinarily is removed after peristalsis has been re-established but usually it is safer to clamp the tube for a period of 24 hours and then if the patient does not become distended, it is wise to inject some liquid contrast medium and then take an X-ray flat plate of the abdomen to be sure that obstruction is not present.

8. Multiple Operative Procedures

This patient was subjected to three operative procedures in a relatively short space of time. There may be some question as to advisability of multiple procedures. However, it should be pointed out that at the first procedure, the internal hernia was reduced, the sac obliterated and Meckel's Diverticulum was resected and an enterostomy was established. At the second procedure, because of acute abdominal distention nothing but an enterostomy was attempted following abdominal exploration. At the third operation, a permanent type of colostomy was

established. In each of these instances, it was considered that good judgment was used because it is much better to perform multiple procedures and have a living patient than to perform one heroic procedure in which the patient does not survive. However, in this case, it might have been possible to bring out a loop of transverse colon at the second operation, opening it as a delayed colostomy. Definitive surgery in the presence of acute obstruction is not to be attempted lightly because it carries a much higher mortality rate than a similar operative procedure in the non-obstructed patient.

9. Inoperability

In this patient, it is presumed that the carcinoma is inoperable on the statement of the operating surgeon and a positive biopsy finding of metastatic lymph node involvement. However, many cases have been seen where subsequent exploration has shown that the lesion previously thought to be inoperable in reality was resectable. This is due to two factors: 1. In the presence of acute obstruction, there may be sufficient inflammatory reaction to give the impression of inoperability from massive infiltration. In such instances, decompression by colostomy or enterostomy sometimes permits curative resection later. 2. The experience of the operating surgeon considerably influences the diagnosis of operability and many cases have been seen where the original surgeon felt the tumor to be inoperable while subsequently a more experienced surgeon was able to perform a curative resection. The attitude of the surgeon in dealing with abdominal carcinoma should be quite radical because without surgery, the patient will surely expire. This attitude is evidenced in the recent publications of Brunschwig who reports extremely radical removals including sections of the abdominal wall.

Case Presentation

The second patient was a 19 year old white soldier, R.A., admitted to the 49th General Hospital Annex on 2 July 1947, with an undiagnosed condition manifested by abdominal pain and diarrhea. There was a two day history of nausea, vomiting and generalized pain, most marked in the lower abdomen. An unusual finding was the amount of generalized tenderness but a diagnosis of appendicitis with probable rupture was made.

Through a McBurney incision, the peritoneum was opened and a large amount of hemorrhagic mucoid fluid was found. The normal appendix was removed and the abdomen then was opened through a right paramedian incision. Loops of small bowel were markedly distended and the patient was found to have a gangrenous Meckel's diverticulum, causing partial bowel obstruction. The diverticulum was kinked on itself and attached by a fibrous band from its tip to the posterior body wall. A resection of the diverticulum by open technique was carried out and a catheter enterostomy was established. The post-operative course during the first eight days was marked by a severe paralytic ileus but at the end of this time peristalsis became actively re-established and there were no further complications. After a period of sick leave, the patient returned to duty.

Discussion

Pertinent points are discussed in the order in which they appear in the case report.

1. Multiple Incisions

Ordinarily sufficient preoperative study of the patient indicates quite well the type of incision which should be employed. However, in the case of incorrect diagnosis, a second more advantageously placed incision may be required. A surgeon need feel no great embarrassment if he finds it necessary, for example, to close a McBurney incision and make another allowing better exposure. However, it should be remembered that a McBurney incision can be extended either by cutting across muscle layers or incising the rectus sheath so that even pelvic procedures can be carried out safely. This extension of the McBurney incision is just as physiologically correct as primary transverse incision which cuts across muscle fibers. Ordinarily, the closing of the McBurney incision in order to make a right rectus incision is not necessary.

2. Paralytic Ileus

Ordinarily any abdominal operative procedure is followed by a paralytic ileus for a short period of time. In intestinal obstruction where operation is delayed, this paralytic ileus is apt to persist for a much longer period of time because the stretched bowel had not regained its normal function. In such instances, application of heat to the abdominal wall as continuous hot wet packs is very efficacious. The indwelling suction tube is of relatively little value and an enterostomy may be of more value because of its lower position in the gastro-intestinal tract. The use of Pitressin or Prostigmine is safe only if the lumen of the bowel has not been opened. In the presence of an intestinal suture line, the use of these drugs is dangerous and they should be employed with great care. If the lumen has not been opened and stimulation of peristalsis is required, either of these drugs given 1/2 ampule every half hour for three doses probably is safe.

XVI. Extract: Tracheotomy in Bulbar Poliomyelitis, Robert E. Priest, M.D., Lawrence R. Boies, M.D., and Neill F. Goltz, M.D., Annals of Otology, Rhinology and Laryngology 56:250 June 1947.

Experiences with tracheotomy during the Minneapolis poliomyelitis epidemic of 1946 have been analyzed. In Minneapolis during 1946, 1,830 cases of poliomyelitis were treated. Approximately 400 "bulbar" cases were reported. Seventy-five tracheotomies were done. Twenty-nine of these patients survived.

The tracheotomies were done at the Minneapolis General Hospital and the University of Minnesota Hospitals. On the University Hospitals' pediatric service and at the Minneapolis General Hospital, tracheotomy was performed when the following indications existed: respiratory distress as evidenced by recurrent cyanosis, coarse rales

in the chest and laryngeal stridor; excitement and unmanageability causing the patient to resist pharyngeal aspiration; stupor of a degree sufficient to make the patient oblivious of accumulation of secretion in his airway; inability to cough effectively; pharyngeal pooling of mucus, vocal cord paralysis, or intralaryngeal hypesthesia demonstrable by laryngoscopy.

On the adult neurology service at the University Hospitals, the criteria listed above were considered to be indications for tracheotomy. The physicians in charge of the University adult neurology service came to believe that tracheotomy gave the patient his best chance if done before cyanosis occurred, because cyanosis can only be diagnosed clinically when it is rather far advanced and when anoxia has done irreversible damage to a central nervous system already markedly damaged by the virus.

The detrimental effect of anoxia on the central nervous system is emphasized. This has probably been stressed sufficiently by only a few authors writing about bulbar poliomyelitis.

As a result of their experience in this epidemic, they believe; 1. that tracheotomy improves the chance for survival of properly selected bulbar poliomyelitis patients, if done before anoxia has produced significant central nervous system damage; 2. that tracheotomy used in conjunction with various means for producing artificial respiration will enable some critically ill poliomyelitis patients to survive until natural recovery of damaged neural tissue can occur.

Comments by Colonel R. E. Blount, Consultant in Medicine, FEC

During the recent outbreak of poliomyelitis in this theater there have been 143 total cases reported. Of these, 73 were classed as paralytic. Sixty-nine were diagnosed as non-paralytic. There was a total of 14 deaths.

As Baker¹ points out, bulbar poliomyelitis readily falls into two groups; 1. where the cranial nerve nuclei show the predominant lesions. Here the outlook is usually good unless the glossopharyngeal and vagus nuclei are seriously involved resulting in paralysis of the pharynx and larynx. 2. Involvement of the autonomic centers for respiration and circulation in the reticular substance of the medulla.

Theoretically, respirator treatment is contraindicated in poliomyelitis cases having both bulbar and spinal cord lesions. It is well known that the machine may suck pharyngeal secretions into the larynx and trachea. T.B. MED 193 points out that under expert observation, extremely ill patients with central respiratory paralysis, or with combined bulbar and spinal paralysis may be given a cautious trial in the respirator. Catheter suction will usually be required to keep the larynx and trachea clear. If such a patient "fights" the respirator,

¹Baker, A. B. Personal communication

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he should be removed. If laryngeal stridor or recurrent cyanosis develop, or unmanageability causes the patient to resist pharyngeal aspiration, or if the other conditions listed under "Criteria for Tracheotomy" above appear, then of course a tracheotomy should not be postponed.

The Minnesota group found that when tracheotomy patients also required respirator treatment, it proved necessary to alter the construction of the "head-end" of the respirator. A neck piece was devised that would not interfere with the tracheotomy site.

The provisions of T.B. MED 193 are again emphasized concerning the management of the acute and subacute phases of poliomyelitis. The patient should usually be treated where he is first hospitalized. These patients withstand transportation poorly and if special equipment is necessary, it should be transported to the patient by the most expeditious method available.

PART III - - STATISTICAL

Evacuation:

1. During the period 26 July 1947 to 29 August 1947, the following patients were evacuated from the several major commands:

	<u>AIR</u>	<u>WATER</u>	<u>TOTAL</u>
JAPAN	217	299	516
*KOREA	152	33	185
PHILRYCOM	40	50	90
MARBO	69	0	69

2. The following are the evacuations per thousand strength for the period 26 July to 29 August 1947:

JAPAN	4.3
*KOREA	4.1
PHILRYCOM	1.8
MARBO	3.6
THEATER	3.4

3. As of 29 August 1947, the following number of patients were awaiting evacuation:

JAPAN	264
KOREA	26
PHILRYCOM	35
MARBO	25

Hospitalization:

1. The Bed Status Report as of 29 August 1947 was as follows:

	<u>Total T/O Beds Present</u>	<u>Total T/O Beds Established</u>	<u>Total T/O Beds Occupied</u>
JAPAN	4,450	4,450	2,531
KOREA	2,050	1,464	928
PHILRYCOM	2,350	2,063	1,584
MARBO	575	575	309
THEATER	9,425	8,552	5,352

*Patients evacuated by air to Japan from Korea for onward evacuation.

RESTRICTED

2. The percent of T/O beds and operating beds occupied for the period ending 29 August 1947 are as follows:

	<u>Percent T/O Beds Occupied</u>	<u>Percent Operating Beds Occupied</u>
JAPAN	57	57
KOREA	45	63
PHILRYCOM	67	77
MARBO	54	54
THEATER	57	63

3. Tables showing various admission rates are listed below:

ADMISSION RATES PER 1,000 PER ANNUM

<u>All Causes</u>					
<u>Week Ending</u>	<u>THEATER</u>	<u>JAPAN</u>	<u>KOREA</u>	<u>PHILRYCOM</u>	<u>MARBO</u>
1 August 1947	712	736	893	627	351
8 August 1947	745	760	967	638	391
15 August 1947	776	807	1,024	633	364
22 August 1947	747	727	1,040	678	400
29 August 1947	740	725	1,016	661	394
<u>Disease</u>					
1 August 1947	647	662	837	578	292
8 August 1947	683	699	912	562	301
15 August 1947	708	739	938	576	310
22 August 1947	688	670	964	630	334
29 August 1947	679	644	966	607	317
<u>Injury</u>					
1 August 1947	65	74	56	49	59
8 August 1947	62	61	55	56	90
15 August 1947	69	68	86	57	54
22 August 1947	59	56	77	48	66
29 August 1947	60	74	49	54	77
<u>Psychiatric</u>					
1 August 1947	9	8	10	8	16
8 August 1947	15	12	24	9	18
15 August 1947	15	16	10	17	16
22 August 1947	18	21	14	18	8
29 August 1947	12	12	18	4	16

RESTRICTED

ADMISSION RATES PER 1,000 PER ANNUM

Organic Neurological Disease

<u>Week Ending</u>	<u>THEATER</u>	<u>JAPAN</u>	<u>KOREA</u>	<u>PHILIPPINES</u>	<u>MARBO</u>
1 August 1947	.4	0	2	0	0
8 August 1947	.7	.4	2	0	0
15 August 1947	.6	0	2	1	0
22 August 1947	.2	.4	0	0	0
29 August 1947	.5	.4	0	1	0

Common Respiratory Disease

1 August 1947	93	77	133	120	32
8 August 1947	99	96	128	105	26
15 August 1947	88	84	116	93	35
22 August 1947	76	46	123	129	19
29 August 1947	95	81	116	134	27

Influenza

1 August 1947	2.3	5	0	0	0
8 August 1947	2.2	3.4	0	2	0
15 August 1947	3.5	.6	1	1	0
22 August 1947	2.5	4.8	0	0	0
29 August 1947	1.8	2.6	2	0	0

Primary Atypical Pneumonia

1 August 1947	5	3	10	5	2.6
8 August 1947	6	6.5	6	6	5
15 August 1947	6.7	7	10	3	2.7
22 August 1947	6	4	22	1	0
29 August 1947	5	6	11	2	0

Common Diarrhea

1 August 1947	19	9.3	53	20	0
8 August 1947	12	4.7	38	13	0
15 August 1947	45	6.3	31	23	0
22 August 1947	12	7	27	18	0
29 August 1947	12	6	37	8	0

Bacillary Dysentery

1 August 1947	.8	.4	1	2	0
8 August 1947	.8	0	1	3	0
15 August 1947	.8	.8	0	2	0
22 August 1947	.7	.8	0	1	0
29 August 1947	1.6	.3	5	0	0

ADMISSION RATES PER 1,000 PER ANNUM

Amebic Dysentery

<u>Week Ending</u>	<u>THEATER</u>	<u>JAPAN</u>	<u>KOREA</u>	<u>PHILRYCOM</u>	<u>MARBO</u>
1 August 1947	1.5	0	0	8	0
8 August 1947	1.7	.4	1	6	0
15 August 1947	.6	.4	0	2	0
22 August 1947	2.7	.8	3	8	0
29 August 1947	1.6	.4	1	5	0

Malaria

1 August 1947	20	1.2	10	81	26
8 August 1947	27	2.6	12	104	13
15 August 1947	19	2.2	13	67	13
22 August 1947	31	2.6	37	101	21
29 August 1947	32	.4	46	94	38

Infectious Hepatitis

1 August 1947	3	1.6	3	6	2.6
8 August 1947	3	4	2	3	0
15 August 1947	4.9	3	4	7	11
22 August 1947	1.8	1.6	1	2	2.7
29 August 1947	6.6	10	3	1	5.5

Mycotic Dermatoses

1 August 1947	6	4	14	5	0
8 August 1947	8	8	8	5	8
15 August 1947	7.8	4	23	5	0
22 August 1947	9.4	3.5	35	5	0
29 August 1947	4.3	4	7	3	1

Venereal Disease

1 August 1947	91	95	139	67	5.3
8 August 1947	89	96	115	76	16
15 August 1947	82	83	95	96	13
22 August 1947	84	101	78	68	24
29 August 1947	94	121	72	79	14

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